

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P588840

Luminaire Tested: **FMR-24-2-LD4-1LO-40-UNV-82-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588840
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMR-24-2-LD4-1LO-40-UNV-82-87-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

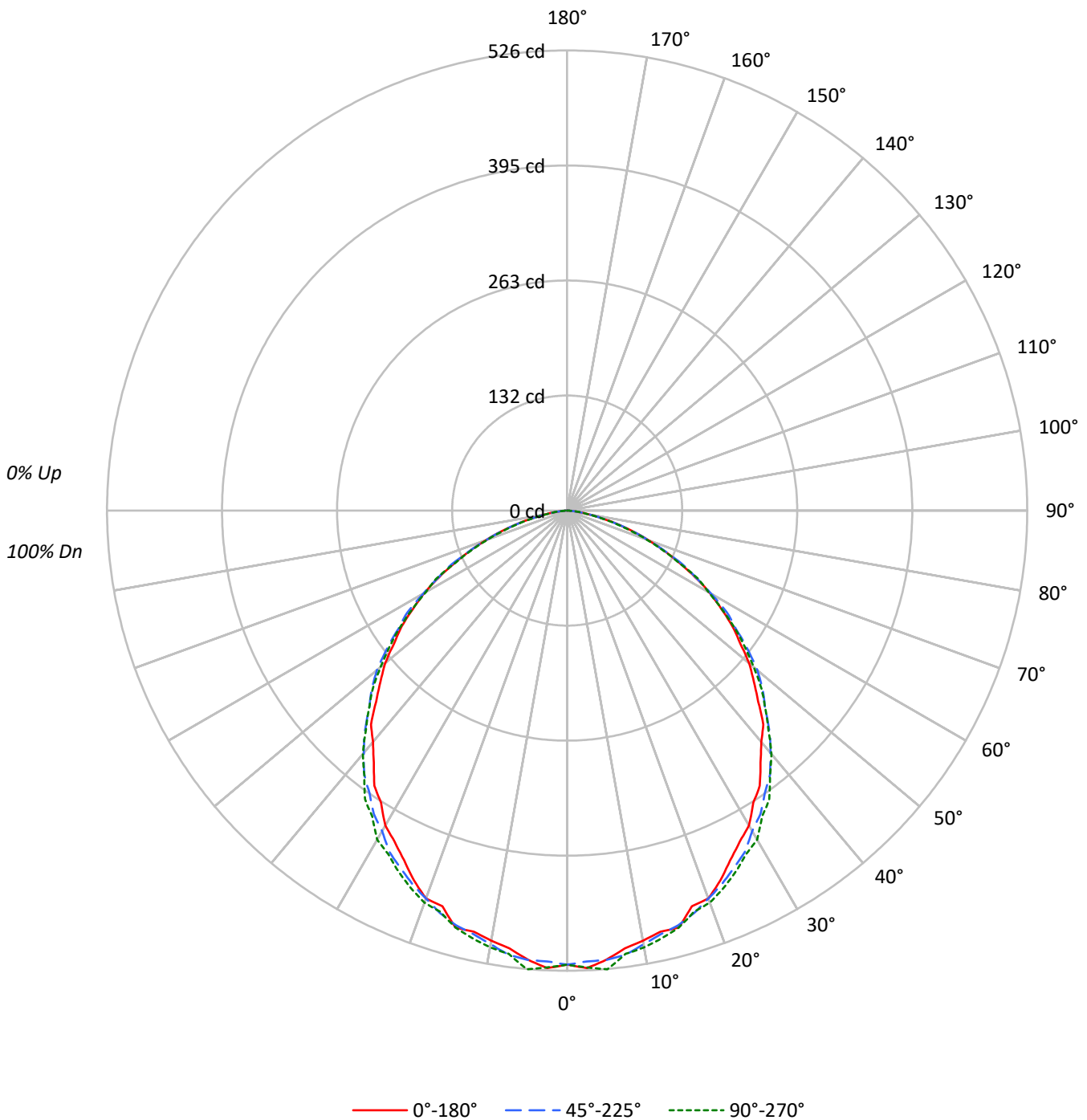
Lumens per Lamp: N/A
Luminaire Lumens: 1308.0 lumens
Efficiency: N/A
Efficacy: 111.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

TEST NUMBER: P588840

CATALOG NUMBER: FMR-24-2-LD4-1LO-40-UNV-82-87-EDD

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1397	1397	1397
5°	1392	1392	1422
10°	1364	1376	1385
15°	1375	1367	1375
20°	1351	1351	1366
25°	1310	1339	1353
30°	1292	1314	1349
35°	1261	1294	1324
40°	1212	1271	1276
45°	1176	1217	1219
50°	1137	1188	1165
55°	1083	1104	1096
60°	1013	1023	1005
65°	904	926	897
70°	775	777	756
75°	613	612	588
80°	411	400	384
85°	222	222	207



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.8	3.7
10°-20°	138.4	10.6
20°-30°	207.3	15.8
30°-40°	245.7	18.8
40°-50°	246.1	18.8
50°-60°	208.9	16.0
60°-70°	140.9	10.8
70°-80°	61.9	4.7
80°-90°	10.0	0.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	394.5	30.2
0°-40°	640.1	48.9
0°-60°	1095.2	83.7
0°-90°	1308.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1308.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	519	519	519	519	519	
5°	515	514	516	514	526	49
15°	493	488	491	493	494	137
25°	441	444	451	457	456	204
35°	384	385	394	403	403	238
45°	309	315	320	328	320	239
55°	231	229	235	234	234	205
65°	142	140	146	140	141	141
75°	59	58	59	55	57	63
85°	7	7	7	7	7	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	519.0	519.0	519.0	519.0	519.0
2.5°	523.5	519.5	515.8	520.1	522.7
5°	515.3	514.1	515.5	514.0	526.4
7.5°	504.7	509.3	512.0	510.3	511.1
10°	499.1	497.5	503.4	507.6	507.0
12.5°	493.0	495.5	495.8	500.3	500.7
15°	493.4	487.7	490.7	493.3	493.5
17.5°	474.2	480.4	482.5	488.3	481.1
20°	471.9	467.4	471.9	477.8	476.9
22.5°	457.5	452.4	462.1	467.4	467.0
25°	441.1	443.5	450.8	456.7	455.7
27.5°	426.8	429.6	439.9	448.0	442.8
30°	415.7	414.3	423.0	430.3	434.3
32.5°	396.0	401.0	411.2	418.4	414.6
35°	384.0	385.1	394.0	403.1	402.9
37.5°	363.0	368.3	380.8	383.4	381.0
40°	345.1	350.4	361.7	364.5	363.3
42.5°	331.9	332.8	342.5	345.7	340.7
45°	308.9	314.7	319.9	328.1	320.4
47.5°	289.3	292.0	303.3	305.5	301.4
50°	271.6	272.5	283.8	281.1	278.4
52.5°	249.3	253.2	259.6	259.1	255.9
55°	230.9	229.4	235.4	233.8	233.7
57.5°	208.9	211.5	216.5	214.0	209.9
60°	188.2	188.3	190.1	187.2	186.7
62.5°	165.2	166.0	166.4	162.9	168.7
65°	141.9	140.0	145.5	139.9	140.9
67.5°	120.3	121.3	120.7	117.3	118.6
70°	98.5	99.7	98.8	94.9	96.1
72.5°	78.5	77.1	78.0	73.0	75.3
75°	59.0	57.8	58.9	54.7	56.6
77.5°	40.2	41.1	40.5	38.3	39.5
80°	26.5	25.8	25.8	24.5	24.8
82.5°	15.5	14.7	14.5	14.1	14.7
85°	7.2	7.0	7.2	7.0	6.7
87.5°	2.6	2.7	2.7	2.5	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)